REMARKS

Claims 1-29 are pending in the present application. In the Office Action mailed April 18, 2006, the Examiner rejected claim 27 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. The Examiner next rejected claims 1-3, 6, 18, 19, 23-25, 27 (as understood) 28, and 29 under 35 U.S.C. §102(b) as being anticipated by Duffy et al. (USP 5,685,680). Claims 1-3, 4, 8-13 and 18-24 are rejected under 35 U.S.C. §102(b) as being anticipated by Enright (USP 2,788,233) (refer to Figs. 5 and 6). Claims 1-3, 4, 8-13 and 18-24 are rejected under 35 U.S.C. §102(b) as being anticipated by Aversten (USP 2,823,297). Claims 1-3, 6, 7, 18, 19, 23-25, 27 (as understood) 28 and 29 are rejected under 35 U.S.C. §102(b) as being anticipated by Rondeau et al. (USP 3,760,143). Claims 1-29 are rejected under 35 U.S.C. §102(b) as being anticipated by Logan (USP 3,253,115). Claims 1, 2, 6, 7, 18, 23, 24, 25, 28, and 29 are rejected under 35 U.S.C. §102(b) as being anticipated by Molyneux et al. (USP 3,891,332). Claims 1-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Irimies (USP 5,493,833) in view of Franz (EP 1030822) (Figs. j and m).

The Examiner rejected claim 27 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. Claim 27 has been amended to overcome the specified rejection.

With respect to many of the §102(b) rejections contained in the Office Action of April 18, 2006, Applicant would like to point out that in numerous instances the Examiner has failed to identify how the scope of a rejected claim compares with the prior art. Applicant should not be required to guess how the Examiner believes the art of record applies to these claims of varying scopes and elements. That is, the Examiner should provide supporting evidence for elements in the current claims that are identified as being disclosed in the cited reference. Furthermore, prior art rejections should ordinarily be confined strictly to the best available art. *MPEP §706.02(I).* That is, prosecution would proceed more expeditiously were the rejections set forth by the Examiner limited to the best available prior art. As set forth herein, the fact that none of the plethora of art cited anticipates, or make obvious, the present claims, is actually evidence of patentability.

35 U.S.C. §102(b) Rejections Under Duffy

The Examiner rejected claims 1-3, 6, 18, 19, 23-25, 27, 28, and 29 under 35 U.S.C. §102(b) as being anticipated by Duffy et al. Regarding claim 1, the Examiner stated that "Duffy et al. illustrates each and every limitation of the aforementioned claim[]" and further that "Duffy

et al. teach a central point, to which the recess is 'spaced (broadly) away from the central point'." *Office Action, April 18, 2006, p. 3.* This may well be true, but Duffy fails to disclose all of the elements recited in claim 1. Claim 1 calls for, in part, a welding stud having a central point on a weld face and at least one hollow recess formed in the weld face and spaced away from the central point. Duffy in no way teaches, discloses or suggests such a configuration on the welding stud disclosed therein. The only "recess" of the welding stud in Duffy et al. is occupied by the flux insert of the welding stud as in Fig. 3. That is, the welding stud in Duffy does not have a hollow recess. This welding stud is generally solid and formed of two dissimilar materials – i.e. the body of the stud and the flux. There is simply no disclosure in the art of record for a welding stud as defined by claim 1 and Duffy et al., in particular, does not have a recess as claimed. Accordingly, that which is called for in claim 1 is not shown, disclosed, taught, or suggested in the cited reference. Thus Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over Duffy.

The Examiner also rejected claim 18 under 35 U.S.C §102(b) as being anticipated by Duffy et al. Claim 18 calls for in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. As shown in Fig. 3 of Duffy et al., the weld end of the welding stud disclosed therein is clearly the type having a generally planar surface about a nipple. Applicant does not necessarily disagree that the surface about the nipple of the stud of Duffy et al. is not completely planar or that the surface is not generally perpendicular to an axis of the stud; however, that is not what is called for in claim 18. Claim 18 calls for a welding stud having an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The stud of Duffy et al. is clearly of the latter type. Additionally, there is no disclosure in Duffy et al. that the coated threaded fastener thereof has an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout as called for in claim 18. Duffy et al. states that "[f]astener 30 of FIG. 3 includes a flux portion 38 which melts and flows to the joint interface between the fastener surface and a mating member during welding to facilitate the welding process …." *Col. 3, lns. 63-66.* That is, one of ordinary skill in the art would appreciate that the flux portion acts to minimize pollution of the weld puddle and does not increase the resistance to current flow as called for in claim 18. Accordingly, that which is called for in claim 18 is not shown or disclosed in Duffy et al.

The Examiner also rejected claim 25 under 35 U.S.C. §102(b) as being anticipated by Duffy et al. Claim 25 calls for in part, means for localizing current density generally uniformly

about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud. The Examiner asserts that Duffy et al. discloses "a means for localizing current density between the perimeter and the nipple." *Office Action, supra at 5.* The Examiner's assertion has no support within the four corners of Duffy et al. and is unsupported by the figures the Examiner alleges shows as much. That is, as shown in the Examiner's reproduced portion of Fig. 3 of Duffy et al., upon welding with the stud, a person of ordinary skill in the art would readily appreciate that the weld current would be concentrated at the 'protrusion' of the encapsulated flux. That is, the weld current is not localized generally uniformly about a majority of the weld end of the stud as called for in claim 25 but is concentrated proximate the protrusion. Furthermore, a person of ordinary skill in the art would readily appreciate that the generally planar nature of the weld end of the stud of Duffy et al. is incapable of providing a localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud as called for in claim 25.

The Examiner also rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Duffy et al. Claim 28 calls for, in part, a welding stud having a second end having a nipple and constructed thereabout with at least a portion having decreased arc surface area. As argued above with respect to claim 18, the stud of Duffy et al. clearly shows a stud having a weld end that is generally planar between what the Examiner has labeled the "at least one protrusion" and the perimeter of the body. Contrary to the Examiner's label, the surface of the weld end between the encapsulated flux and the perimeter of the body is generally planar as compared to the generally non-planar construction called for in the present claims. Even further, Duffy et al., neither in the description thereof or in figures themselves, teaches, suggests, or discloses a welding stud having a second end with a nipple and constructed thereabout with at least a portion having decreased arc surface area as called for in claim 28.

Claim 29 further defines the second end of a welding stud as having a surface that is constructed with at least one protrusion arranged to face a workpiece and a remaining surface that is configured with a contact area that is decreased compared to a planar surface. As stated in the present Specification, "[d]uring a welding operation, the non-planar construction of face 54 results in an increase in effective surface area of weld end 34 and provides a stud with a decreased contact area [...] defined as that area that would contact a workpiece once plunged into the workpiece during the welding process." *Specification, ¶[0031].* That is, as shown in Figs. 4-13 of the present Application, face 54, the structure between nipple 52 and a perimeter of weld end 34 of weld stud 21, has a contact area, or the area that would contact the workpiece when plunged thereinto, that is decreased compared to a planar surface. As shown in Fig. 3 of Duffy et

al. as reproduced by the Examiner, the area of the weld end of the stud thereof between the "at least one protrusion" and a perimeter of the weld stud, is generally planar with what appears to be only one directional change between the perimeter of the weld stud and the "at least one protrusion." As shown in Fig. 6 of Duffy et al, the generally planar end of the weld stud thereof is contacted with the workpiece. That is, the end thereof is not constructed with a contact area that is decreased compared to a planar surface as called for in claim 29. Accordingly, that which is called for in claim 29 is not disclosed, taught, or suggested in Duffy et al.

35 U.S.C. §102(b) Rejections Under Enright

The Examiner cited Enright as anticipating claims 1-3, 4, 8-13, and 18-24 under 35 U.S.C. §102(b). The Examiner rejected claim 1 stating that Enright teaches a welding stud with a second end having a plurality of recesses (i.e., grooves) disposed concentrically about a center point and also having a powdered metal flux in the second end, which increases resistance to current. As stated earlier, claim 1 calls for, in part, a welding stud having a central point on a weld face and at least one hollow recess formed in the weld face and spaced away from the central point. Enright fails to disclose any of hollow recesses, rather what were recesses at one time during manufacture are used to hold a flux material. Therefore, the end product does not have the claimed recess. Enright discloses a brazing material 11 that forms the second end, wherein the brazing material has at least one recess 19 on the outer surface thereof, for holding more flux. *See Col. 2, lines 54-55*. The recess as set forth in Enright is not hollow as in claim 1. Thus, while Enright may disclose recesses in the second end of the welding stud, there is no teaching or suggestion made of those recesses being hollow, rather they are filled with a flux material. As such, Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over Enright.

The Examiner also rejected claim 10 under 35 U.S.C. §102(b) as being anticipated by Enright. Claim 10 discloses, in part, a welding stud wherein the weld end has at least one protrusion extending outwardly to space a majority of the weld end from a workpiece. There is no protrusion disclosed in Enright that spaces a majority of the weld end away from the workpiece. Rather, the weld end is a brazening material that is a gently rounded surface as shown in Figs. 2, 4, and 6. Such a surface is not a protrusion and would have a far greater contact area with the workpiece than the protrusion described in claim10. Therefore, Enright fails to disclose that which is called for in claim 10. Applicant believes claim 10, and the claims which depend therefrom, are patentably distinct over Enright.

The Examiner also rejected claim 18 under 35 U.S.C §102(b) as being anticipated by Enright. Claim 18 calls for in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner stated that "the second end has a weld face that increases resistance to current." *Id. at 7.* Applicant respectfully disagrees. Enright discloses a weld end having a brazening material 11 that has a gently rounded surface as shown in Figs. 2, 4, and 6. Nowhere in Enright is it disclosed or suggested that the second end of the welding stud having the brazening material has an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner has failed to point to any disclosure in Enright of such a feature. As this element is not disclosed, taught or suggested in Enright, claim 18 and the claims which depend therefrom are patentably distinct thereover.

The Examiner also specifically mentioned claims 20-22, characterizing them as product-by-process claims. Applicant respectfully disagrees with this assessment. A product-by-process claim is a claim on a product described in product-by-process terms. Claims 20-22 are not product-by-process claims. Rather, they are each alternative steps in the method of independent claim 18. No product is being claimed in claims 18-24 and as such, the claims cannot be product-by-process claims.

35 U.S.C. §102(b) Rejections Under Aversten

The Examiner rejected claims 1-3, 4, 8-13, and 18-24 under 35 U.S.C. §102(b) as being anticipated by Aversten. The Examiner rejected these claims stating that Aversten teaches a welding stud comprising, in part, a second end (Figures 2 and 4) having powdered metal flux (2) encapsulated therein, "the second (i.e., "weld") end ha[ving] a weld face that increases resistance to current, and further comprises a plurality of recesses (i.e., 'grooves' 4, 5) disposed concentrically about a center point/area of said second end." *Office Action at 9.* As stated earlier, claim 1 calls for, in part, a welding stud having at least one hollow recess formed in the weld face. Similar to Enright, Aversten fails to disclose any of hollow recesses, rather the recesses are used to hold a flux material. The second end portion 2 of the welding stud "thereof filled with flux is brought into contact with the metal surface to which the stud is to be fastened." *Col. 1, lines 66-67.* The recesses as set forth in Aversten are not hollow as in claim 1. Thus, while Aversten may disclose what may have been "recesses" at one time in the manufacturing cycle in the second end of the welding stud, there is no teaching or suggestion made of those recesses

being hollow, rather they are filled with a flux material. As such, Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over Aversten.

The Examiner also rejected claim 10 under 35 U.S.C. §102(b) as being anticipated by Aversten. Claim 10 discloses, in part, a welding stud wherein the weld end has at least one protrusion extending outwardly to space a majority of the weld end from a workpiece. There is no such protrusion disclosed in Aversten that spaces a majority of the weld end away from the workpiece. Rather, the weld end is described as a "bulged end face" as shown in Figs. 1 and 3. Such a surface is not a protrusion and would have a far greater contact area with the workpiece than the protrusion described in claim10. Therefore, Aversten fails to disclose that which is called for in claim 10. Applicant believes claim 10, and the claims which depend therefrom, are patentably distinct over Aversten.

The Examiner also rejected claim 18 under 35 U.S.C §102(b) as being anticipated by Aversten. Claim 18 calls for in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner stated that "the second end has a weld face that increases resistance to current…." *Id. at 9.* Applicant respectfully disagrees. Aversten discloses a weld end having a bulged end face 3 having its greatest height at the middle of the end face with a plurality of flux pockets in the end face as shown in Figs. 1 and 3. Nowhere in Aversten is it disclosed or suggested that the bulged end face of the welding stud has an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner has failed to point to any disclosure in Aversten of such a feature. As this element is not disclosed, taught or suggested in Aversten, claim 18 and the claims which depend therefrom are patentably distinct thereover.

35 U.S.C. §102(b) Rejections Under Rondeau et al.

The Examiner rejected claims 1-3, 6, 7, 18, 19, 23-25, 27, 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Rondeau et al. The Examiner rejected these claims stating that Rondeau et al. teaches a welding stud comprising, in part, "a second end having a weld face that increases resistance to current, and further comprises a recess (20) spaced (e.g., 'axially') from a center point/area (82) of said second end." *Office Action, supra at 9.* As stated earlier, claim 1 calls for, in part, a welding stud having at least one hollow recess formed in the weld face. Rondeau et al. fails to disclose a hollow recess, rather the recess therein is used to hold a flux material 28 and/or a welding stud 24. Thus, while Rondeau et al. may disclose a what once may

have been a recess in the second end of the welding stud, there is no teaching or suggestion made of that recess being hollow. As such, Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over Rondeau et al.

The Examiner also rejected claim 18 under 35 U.S.C. §102(b) as being anticipated by Rondeau et al. Claim 18 calls for in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow through the second end in the area between a perimeter and a central area of the second end as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner provides no explanation as to how the disclosure of Rondeau et al. anticipates the above claim. Rondeau et al. does not disclose a welding stud having an increased resistance to current flow between a perimeter and a central area of the second end as compared to a welding stud having a nipple and a generally planar surface thereabout. That is to say, the second end disclosed in Rondeau et al. does not have any area between the perimeter of the second end and the nipple 24 that is in contact with a workpiece which would have an increased resistance to current flow. As such, claim 18 is not anticipated by that which is disclosed in Rondeau et al.

The Examiner also rejected claim 25 under 35 U.S.C. §102(b) as being anticipated by Rondeau et al. Claim 25 calls for, in part, means for localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud. The Examiner asserts that "[i]n its broadest reasonable sense, Rondeau et al. comprises… [a] second end ha[ving] a weld face that increases resistance to current…." *Id. at 9.* The Examiner's assertion is not backed up in any way and has no support within the four corners of Rondeau et al. That is, as shown in Fig. 1 of Rondeau et al., upon welding with the stud, a person of ordinary skill in the art would readily appreciate that the weld current would be concentrated at the slug or fluxing material 24 of the second end. That is, the weld current is not localized generally uniformly about a majority of the weld end of the stud as called for in claim 25 but is concentrated proximate the slug. Furthermore, a person of ordinary skill in the art would readily appreciate that the generally planar nature of the weld end of the stud of Rondeau et al. is incapable of providing a localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud as called for in claim 25.

The Examiner also rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Rondeau et al. Claim 28 calls for, in part, a welding stud having a second end having a nipple and constructed thereabout with at least a portion having decreased arc surface area. As argued above with respect to claim 18, the stud of Rondeau et al. clearly shows a stud

having a weld end that is generally planar between a slug 24 and the perimeter of the body. Contrary to the Examiner's assertion, the surface of the weld end between the slug and the perimeter of the body is generally planar as compared to the generally non-planar construction called for in the present claims. Even further, Rondeau et al., neither in the description thereof or in figures themselves, teaches, suggests, or discloses a welding stud having a second end with a nipple and constructed thereabout with at least a portion having decreased arc surface area as called for in claim 28.

Claim 29, as stated earlier, further defines the second end of a welding stud as having a surface that is constructed with at least one protrusion arranged to face a workpiece and a remaining surface that is configured with a contact area that is decreased compared to a planar surface. As shown in Fig. 1 of Rondeau et al., the area of the weld end of the stud thereof between the "at least one protrusion" and a perimeter of the weld stud, is generally planar with what appears to be only one directional change between the perimeter of the weld stud and the "at least one protrusion." The generally planar end of the weld stud of Rondeau et al. is contacted with the workpiece. That is, the end thereof is not constructed with a contact area that is decreased compared to a planar surface as called for in claim 29. Accordingly, that which is called for in claim 29 is not disclosed, taught, or suggested in Rondeau et al.

35 U.S.C. §102(b) Rejections Under Logan

The Examiner referenced Logan as anticipating claims 1-29 under 35 U.S.C. §102(b). The Examiner rejected all these claims stating that the second end has a weld face that increases resistance to current, and further comprises "a plurality of recesses/grooves (near 31, under 33, and near 39) disposed concentrically about a center point/area of said second end" and further that "the welding stud comprises a nipple (42) aligned with the axis of the stud, which is formed from the same material, and which spaces the stud from a workpiece (88) during a welding process (Figure 8)." *Office Action, supra at 9-10.* Applicant respectfully disagrees with the Examiner's assessment of the features disclosed in Logan.

Claim 1 calls for, in part, a welding stud having a central point on a weld face and at least one hollow recess formed in the weld face and spaced away from the central point. Logan in no way teaches, discloses or suggests such a configuration on the welding stud disclosed therein. Logan does disclose a cavity or chamber 35 on the second end of the welding stud, but said chamber 35 is, once again, "filled with welding flux 37." *Col. 3, line 56.* That is, the welding stud in Logan does not have a hollow recess or chamber. Accordingly, that which is called for in claim 1 is not shown, disclosed, taught, or suggested in the art of record. As such, Applicant

believes claim 1, and the claims which depend therefrom, are patentably distinct over the art of record.

The Examiner also rejected claim 10 under 35 U.S.C. §102(b) as being anticipated by Logan. Claim 10 discloses, in part, a welding stud wherein the weld end has a plurality of ridges and grooves formed therein. This plurality of ridges and grooves is depicted in one embodiment in Fig. 3. Examiner's characterization of Logan distorts the structure therein to anticipate Applicant's claim 10. There is one chamber 35 or groove in the second end of the welding stud of Logan, as shown in Fig. 1. The other grooves identified by the Examiner are not at all similar in form or function to those specified in claim 10, nor are they even present on the actual weld face when the chamber is filled with a flux material as is called for in Logan. As such, that which is called for in claim 10 is not shown, disclosed, taught, or suggested in the art of record and Applicant therefore believes claim 10, and the claims which depend therefrom, are patentably distinct over Logan.

The Examiner also rejected claim 18 under 35 U.S.C. §102(b) as being anticipated by Logan. Claim 18 calls for in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow through the second end in the area between a perimeter and a central area of the second end as compared to a welding stud having a nipple and a generally planar surface thereabout. The Examiner provides no explanation as to how the disclosure of Logan anticipates the above claim. Logan does not disclose a welding stud having an increased resistance to current flow between a perimeter and a central area of the second end as compared to a welding stud having a nipple and a generally planar surface thereabout. That is to say, the second end disclosed in Logan does not have any area between the perimeter and the nipple 42 that is in contact with a workpiece which would have an increased resistance to current flow. As such, claim 18 is not anticipated by that which is disclosed in Logan.

The Examiner also rejected claim 25 under 35 U.S.C. §102(b) as being anticipated by Logan. Claim 25 calls for in part, means for localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud. Similar to claim 18 above, the Examiner is claiming that Logan discloses an area between a perimeter of the weld face and the nipple that localizes current density generally uniformly. Again, Logan does not have any area between the perimeter and the nipple 42 that is in contact with a workpiece which would localize current density uniformly therein. As such, claim 25 is not anticipated by that which is disclosed in Logan.

The Examiner also rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Logan. Claim 28 calls for, in part, a welding stud having a second end having a nipple and constructed thereabout with at least a portion having decreased arc surface area. The second end of the stud in Logan, does not have a configuration in which the second end has a portion having decreased surface area as called for in claim 28. That is, there is no "portion" of the second end of Logan, besides the nipple, that constitutes an arc surface area. The only portion of the second end in Logan that contacts a workpiece is the nipple, and as such, there can be no other portion that could be characterized as being an arc surface area. As such, Applicant believes that Logan fails to teach, suggest, or disclose a welding stud having a second end with a nipple and a portion thereabout having decreased arc surface area as called for in claim 28.

Claim 29, as stated earlier, further defines the second end of a welding stud as having a surface that is constructed with at least one protrusion arranged to face a workpiece and a remaining surface that is configured with a contact area that is decreased compared to a planar surface. Similar to the argument for claim 28, there is no "remaining surface" that is configured with a contact area on the second end of Logan besides the nipple. The only portion of the second end in Logan that contacts a workpiece is the nipple, and as such, there can be no other surface on the second end that could be considered a contact area with a workpiece. As such, Logan fails to anticipate that which is called for in claim 29.

35 U.S.C. §102(b) Rejections Under Molyneux

The Examiner referenced Molyneux et al. as anticipating claims 1, 2, 6, 7, 18, 23, 24, 25, 28, and 29 under 35 U.S.C. §102(b). The Examiner failed to provide any explanation as to how the cited reference anticipates the above claims. The only support given by the Examiner for the 102(b) rejection was by way of a drawing included in the Office Action. *See Office Action, supra at 11.* Regardless of an appropriate explanation being provided, Applicant respectfully disagrees with the Examiner's assessment of the features disclosed in Molyneux et al.

In regards to claim 1, Applicant does not believe that Molyneux et al. discloses a welding stud having a central point on a weld face and at least one hollow recess formed in the weld face and spaced away from the central point. The welding stud 1 in Molyneux et al. has a lower end 3 having a small central conical projection 5 pointing along the stud axis and surrounded by a shallow annular groove 6. However, when the welding stud 1 is positioned on a metal surface 7 for welding, the annular groove 6 is configured to mesh with a crater lip 9 formed on the metal surface 7. Thus, when the welding stud is positioned on the metal surface 7, the annular groove 6 is not hollow. Therefore, Molyneux et al. fails to disclose a hollow recess as set forth in claim 1.

As such, Applicant believes claim 1, and the claims which depend therefrom, are patentably distinct over the art of record.

The Examiner also rejected claim 18 under 35 U.S.C §102(b) as being anticipated by Molyneux et al. Claim 18 calls for, in part, a method of manufacturing a welding stud which includes the step of forming a second end of the weld stud with increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. As shown in Fig. 1 of Molyneux et al., the weld end of the welding stud disclosed therein is clearly the type having a generally planar surface about a nipple or central point. Claim 18 calls for a welding stud having an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. The welding stud of Molyneux et al. is clearly of the latter type, having a central point and a generally planar surface thereabout as called for in claim 18. Therefore, the stud of Molyneux et al. cannot have an increased resistance to current flow as compared to a welding stud having a nipple and a generally planar surface thereabout. Accordingly, that which is called for in claim 18 is not shown or disclosed in Molyneux et al.

The Examiner also rejected claim 25 under 35 U.S.C. §102(b) as being anticipated by Molyneux et al. Claim 25 calls for in part, means for localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud. The Examiner's assertion that the prior art discloses a second end having a weld face that increases resistance to current has no support within the four corners of Molyneux et al. That is, as shown in Fig. 1 of Molyneux et al., upon welding with the stud, a person of ordinary skill in the art would readily appreciate that the weld current would be concentrated at the slug or fluxing material 24 of the second end. That is, the weld current is not localized generally uniformly about a majority of the weld end of the stud as called for in claim 25, but is concentrated proximate the slug. Furthermore, a person of ordinary skill in the art would readily appreciate that the generally planar nature of the weld end of the stud of Molyneux et al. is incapable of providing a localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud as called for in claim 25.

The Examiner also rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by Molyneux et al. Claim 28 calls for, in part, a welding stud having a second end having a nipple and constructed thereabout with at least a portion having decreased arc surface area. As argued above with respect to claim 18, the stud of Molyneux et al. clearly shows a stud having a weld end that is generally planar between a central point 5 and the perimeter of the body when meshed with a workpiece. Contrary to the Examiner's assertion, the surface of the weld

end between the central point 5 and the perimeter of the body is generally planar as compared to the generally non-planar construction called for in the present claims. Even further, Molyneux et al., neither in the description thereof or in figures, teaches, suggests, or discloses a welding stud having a second end with a nipple and constructed thereabout with at least a portion having decreased arc surface area as called for in claim 28.

Claim 29, as stated earlier, further defines the second end of a welding stud as having a surface that is constructed with at least one protrusion arranged to face a workpiece and a remaining surface that is configured with a contact area that is decreased compared to a planar surface. As shown in Fig. 1 of Molyneux et al., the area of the weld end of the stud thereof between the "at least one protrusion" and a perimeter of the weld stud, is generally planar with only an annular groove 6 for meshing with a crater lip 9 between the perimeter of the weld stud and the "at least one protrusion." The generally planar end of the weld stud of Molyneux et al. is contacted with the workpiece. That is, the end thereof is not constructed with a contact area that is decreased compared to a planar surface as called for in claim 29. Accordingly, that which is called for in claim 29 is not disclosed, taught, or suggested in Molyneux et al.

35 U.S.C. §103(a) Rejections Over Irimies in View of EP-1060822

The Examiner has rejected all pending claims with an omnibus 35 U.S.C. §103(a) rejection asserting that claims 1-29 are unpatentable over Irimies in view of EP 1060822. Applicant would like to point out that the EP 1060822 patent cited by the Examiner was provided to Applicant in German. The Examiner did not state what portion of the reference is relied on and provided no translation of the reference so as to allow Applicant to respond to Examiner's statements regarding what is disclosed therein. The only portion of EP 1060822 that Applicant was able to find an English translation for was the Abstract. The Abstract fails, in and of itself, to support the teachings alleged by the Examiner. This begs the question of how can an applicant argue the teachings of a cited reference if the document is provided in a foreign language?

Although not precedential, *Ex parte* Schade discusses the deficiencies associated with rejecting claims over foreign language documents and provides support for Applicant's position herein. In *Ex parte* Schade, the examiner rejected several claims over an English language abstract with citation to the underlying German language document. Even though the Examiner's Answer included reference to the underlying German language document, the Board "[did] not consider[] the German-language portion of Schade *because [they] could not read it.*" *Ex parte* Schade, BPAI Appeal No. 2001-1241, pg. 9, ¶1 (emphasis added). The Board further required that the "the Examiner should obtain a translation or English-language equivalent of Schade in

order to fully evaluate its relevance to the present claims" and further stated that "[e]ven if the Examiner is fluent in technical German, and can understand the parts of Schade that are cited in Examiner's Answer, *a translation would allow the rest of us who are charged with reviewing the rejection to also understand the reference*." Id., (emphasis added). That is, the Board recognizes that without providing a translation of the reference relied upon, there is no mutual understanding of the rejection. In light of such, Applicant respectfully believes it is not proper to maintain a rejection that was based in whole or in part on a non-English language document and that any further responses by the Examiner cannot be made final until Applicant has been given an English translation of such document from the Examiner and had a chance to respond to the rejections based thereon. Therefore, Applicant respectfully requests that the Examiner, if deemed necessary, issue any further action as non-final and provide Applicant with an English translation of EP 1060822.

However, in light of at least the foregoing arguments, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-29.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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[1] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.